AV6418 High Performance Mini-OTDR

Product Overview:

AV6418 OTDR is a high performance measuring instrument with multifunction designed for testing FTTx network. It's mainly used to measure the physical characteristics of optical fiber under test, such as the length、the transmission loss and the splice loss etc.. It can also locate the faults or breaks of optical fiber. It's widely applied in the manufacture, construction and maintenance in optical fiber communication system.

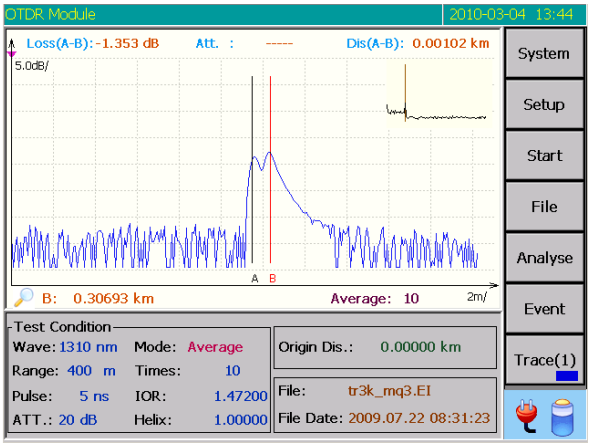
Main Features:

- Handheld、lightweight and convenience for carrying
- 45dB high dynamic range
- ≤1m extra-short event dead zone
- 0.05m high distance resolution,128k sampling points
- Fast auto measurement,one-button operating
- Test up to four wavelengths with a single unit
- Communication light check automatically
- Remote function via Ethernet
- Double USB interfaces, supporting USB stick and printer and direct cable download to PC via ActiveSync
- Supporting Bellcore GR196 file format in writing or reading
- Built-in lithium battery with high capacity for over 8 hours of operating life
- Visible fault locating (VFL) and optical power meter
- Universal FC/PC,FC/SC,FC/ST connector type, it's convenient for surface cleaning
- Updating application software on-line, returning to factory is unnecessary

Tel: 86-532-86896691 Fax: 86-532-86889056 http://www.ei41.com E-mall: eiqd@ei41.com

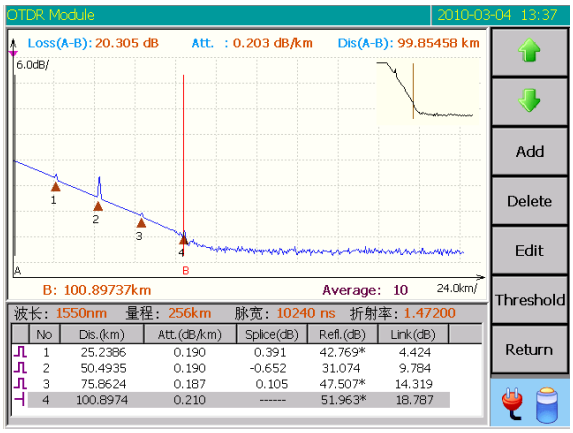
● **Extra-short event dead zone**

Due to its high resolution, AV6418 OTDR has 1m extra-short event dead zone, which is suitable for testing short optical fiber and pigtail optical fiber.



● **High-speed auto analyzation**

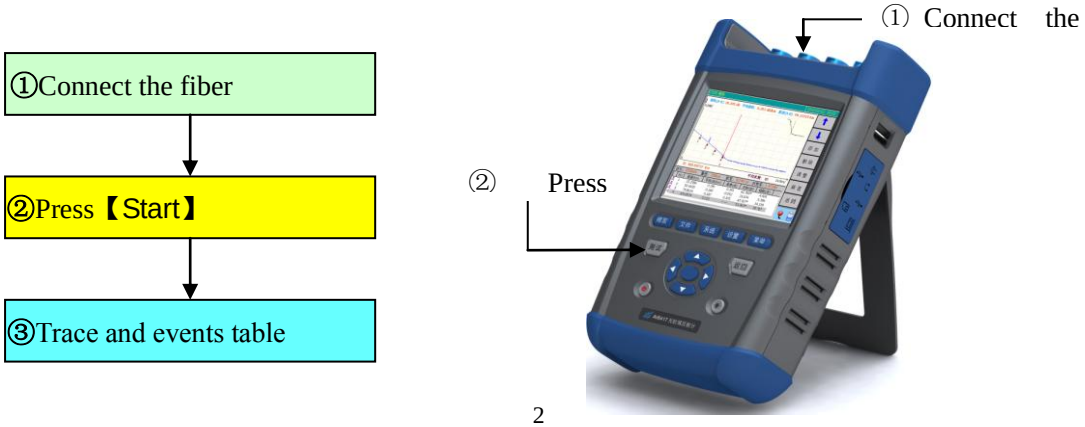
AV6418 can quickly determine and locate the events and faults in trace precisely, then lists all events in even table, so it's very useful to maintainers to improving efficiency and it's unnecessary to know about the relative background knowledge.



Trace analyzing and event table

● **High-speed auto measurement**

The function of auto measurement of AV6418 OTDR makes it unnecessary to operator to know about the further details of operating. The operation becomes very simple: after connect the fiber, only press【Start】,then the trace measured is displayed and the events are listed on screen in a few seconds, now, you can view the trace and event table.

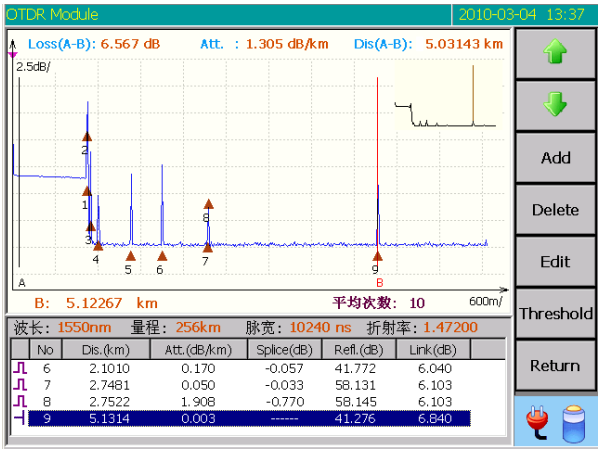


Tel: 86-532-86896691 Fax: 86-532-86889056 http://www.ei41.com E-mall: eiqd@ei41.com

● **Unique PON testing capability**

AV6418 is ideal for access and FTTH network testing, it enable you to test through 1x32 even 1x64 splitters for PON(passive optical network) testing.

AV6418 offers an exceptional 1 m event dead zone and 0.05m high distance resolution, with which you can characterize all events between the transmitter and the central office's fiber distribution panel.



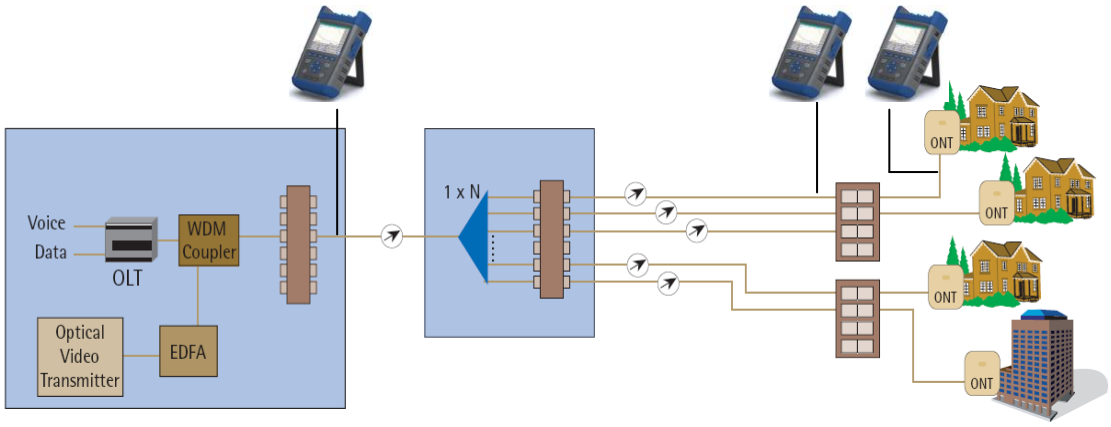
● **Abundant external interface**

AV6418 has abundant external interface, such as USB, Min-USB, Ethernet, earphone and SD, due to these, it can provide the following functions:

- Training via multimedia for operators, which can enable you become a measuring expert within short time.
- Implementing remote controlling through Ethernet, troubleshooting from long distance for fiber under test.
- Printing trace and event table
- Updating application software on-line

Tel: 86-532-86896691 Fax: 86-532-86889056 http://www.ei41.com E-mall: eiqd@ei41.com

Typical Application:



AV6418 OTDR is mainly used to measure FTTx network, it provides multifunctions in one unit. AV6418 offers three measuring modes: manual mode (including real time mode and average mode), auto mode and dead zone mode.

Manual measurement mode: manual mode is suitable for skilled operator who is familiar with the instrument. In this measurement mode, to get more accurate results, real-time mode or average mode can be selected if necessary.

In real-time mode, the dynamic changes of fiber chain can be detected timely, it is very useful when you need to observe the effect and process of fiber being spliced or connected.

In average measurement mode, the noise in trace can be suppressed, and the SNR(signal noise ratio) is improved, therefore，the result is more accurate. In fact, the more average times is executed, the more noise in trace is suppressed, and the longer time is spent for signal processing. In practice, the average times should be set properly according to necessity.

Auto measurement mode: the optimized measurement conditions are set automatically, it's unnecessary to operator to know about the complicated background knowledge and the further details of operating. In this mode, the more accurate results can be gained when proper average times are set, but it will increase the time of signal processing.

Dead zone mode: this mode is suitable for testing optical fiber with short distance and the optimized settings of distance range, pulse width and attenuator can be executed automatically. To get the best result, the terminal return loss should be guaranteed less than -40dB.

Tel: 86-532-86896691 Fax: 86-532-86889056 http://www.ei41.com E-mall: eiqd@ei41.com

Technical Specifications:

Dynamic Range	Please refer to "OTDR modules specifications "
Distance Accuracy	±(0.75 m + sample space + measurement distance×0.0025%)[1]
Sampling Resolution	0.05、0.1、0.2、0.5、1、2、4、8、16 m
Distance Range	0.4、0.8、1.6、3.2、6.4、16、32、64、128、256、512 km (SMF); 0.4、0.8、1.6、3.2、6.4、16、32 (MMF of 850 nm)
Pulse Width	5、10、30、80、160、320、640、1280、5120、10240、20480 ns 5、10、30、80、160、320、640、1280 (MMF of 850 nm)
Loss Threshold	0.01 dB
Sampling Points	Up to128 k
Linearity	0.05 dB/ dB
Loss Resolution	0.001 dB
Memory Capacity	≥800 traces(build-in), ≥65500 traces(2 GB SD storage)
Group Refractive Index Setting	1.00000 to 2.00000 (0.00001 steps)
Distance Unit	km、m、kft、ft
Display	640×480, 6.5 inch TFT-LCD (touch screen)
Interface	USB, Min-USB, Ethernet, earphone, SD
Optical Connector	FC/SC/ST (universal connector)
VFL	650 nm ±10 nm，2 mW（typical）; CW/1 Hz
Optical Power Meter	Wavelength range: 1200 nm to 1650 nm Measurement range: -60 to 0 dBm Measurement uncertainty:±5% (-10 dBm, CW)
Power Supply	AC adapter 100 to 240 V, 50/60 Hz, 1.5 A DC:19 V±2 V（2 A） Built-in Lithium battery: 4400 mAh, 14.8 V. Operating time ≥8 hours [2]
Language	User selectable : simplified Chinese, English, Russian, Korean etc.. (please contact CETC 41st for others)
Environment	Operating temperature : -5 to 50 ℃ (charging: 5 to 40 ℃) Storage temperature : -40 to 70 ℃ (Battery : -20 to 6 0℃) Relative humidity : 5% to 95%, non-condensing
Dimensions	295 mm×186 mm×75 mm
Weight	2.5 kg Approx.

Note1: Does not include uncertainty due to fiber index

Note2: Low brightness, exclude measuring.

Tel: 86-532-86896691 Fax: 86-532-86889056 http://www.ei41.com E-mall: eiqd@ei41.com

Ordering Information:

● **Main unit**

Ordering NO.	Description
AV6418-SS	AV6418 base unit with standard display brightness
AV6418-HS	AV6418 base unit with enhanced display brightness

Note: the standard OTDR interface type is FC/UPC， type of FC/APC is optional.

● **Standard Accessories**

NO.	Name	NO.
1	Power line	1
2	AC/DC adapter	2
3	Quality certification	3
4	User manual	4
5	Trace analyzing software（CD）	5
6	Hard Carrying case(including gallus)	6
7	Special gallus of instrument	7

● **Options**

NO.	Name	type	note
1	USB stick		Saving measuring data
2	SD		Saving measuring data
3	printer	Hp laser Jet P2015d or Hp laser Jet 1022	Printing traces
4	USB cable		Communicating with PC
5	Standby battery pack	6417LB-1192	Standby battery
6	FC/SC，FC/ST connectors		

Note：For the necessity of improvement, the material contained in this document is subject to change without notice.

● **Standard accessories**

NO.	Name	quantity
1	Power cord	1
2	AC/DC adapter	1
3	Quality certification	1
4	User manual	1
5	Trace analyzing software（CD）	1
6	Hard Carrying case(Including gallus)	1
7	Special gallus of instrument	1

Note: the standard OTDR interface type is FC/UPC， type of FC/APC is optional.

Tel: 86-532-86896691 Fax: 86-532-86889056 http://www.ei41.com E-mall: eiqd@ei41.com